



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re patent  
appln. of: Ming L. Shiao, et al.

Serial No.: 10/679,898

Filing Date: October 6, 2003

For: **COLORED ROOFING GRANULES  
WITH INCREASED SOLAR HEAT  
REFLECTANCE, SOLAR HEAT-  
REFLECTIVE SHINGLES, AND  
PROCESS FOR PRODUCING SAME**

Group  
Art Unit: 3635

Examiner: Not yet assigned

Docket No.: 077-03

Mail Stop DD  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Certificate of Mailing  
Date of Deposit: February 10, 2004

I hereby certify that this paper or fee and the  
papers indicated as being transmitted  
therewith are being deposited with the  
United States Postal Service as "First Class  
Mail" postage prepaid in an envelope  
addressed to:

Mail Stop DD  
Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Alex R. Sluzas  
(type/print name of person making deposit)

Alex R. Sluzas, Reg. No. 28,669

**INFORMATION DISCLOSURE STATEMENT  
PURSUANT TO THE PROVISIONS OF 37 C.F.R. §§ 1.56, 1.97 AND 1.98**

Sir:

In accordance with applicants' duty of disclosure under 35 U.S.C. § 1.56(a) and pursuant to 37 C.F.R. §§ 1.97-1.98, applicants list herewith patents, publications, or other information of which they are aware and they believe may be material to the examination of this application in respect of which there may be a duty to disclose.

The filing of this Information Disclosure Statement shall not be construed to mean that a search has been made, an admission that the information cited is, or is considered to be, material to patentability, or that no other material information, as defined in 37 C.F.R. § 1.56(a),

exists. Further, the filing of this Information Disclosure Statement shall not be construed as an admission against any interest in any manner.

U.S. Patents

U.S. Patent 2,732,311 to Hartwright dated January 24, 1956  
U.S. Patent 2,963,378 to Palmquist, et al. dated December 6, 1960  
U.S. Patent 2,981,636 to Lodge, et al. dated April 25, 1961  
U.S. Patent 3,255,031 to Lodge, et al. dated June 7, 1966  
U.S. Patent 4,583,486 to Miller, dated April 22, 1986  
U.S. Patent 4,717,614 to Bondoc et al., dated January 5, 1988  
U.S. Patent 4,916,014 to Weber, et al. dated April 10, 1990  
U.S. Patent 5,380,552 to George, et al. dated January 10, 1995  
U.S. Patent 5,516,573 to George, et al. dated May 14, 1996  
U.S. Patent 5,723,516 to Bigham, et al. dated March 3, 1998  
U.S. Patent 5,928,761 to Hedblom, et al. dated July 27, 1999  
U.S. Patent 5,962,143 to Krauthäuser, et al. dated October 5, 1999  
U.S. Patent 6,174,360 to Sliwinski et al. dated January 16, 2001  
U.S. Patent 6,366,397 to Genjima, et al. dated April 2, 2002  
U.S. Patent 6,376,075 to Tacke-Willemsen, et al. dated April 23, 2002  
U.S. Patent 6,454,848 to Sliwinski, et al. dated September 24, 2002  
U.S. Patent 6,521,038 to Yanagimoto, et al. dated February 18, 2003  
U.S. Patent 6,533,961 to Harelstad, et al. dated March 18, 2003  
U.S. Patent 6,548,145 to Joedicke dated April 15, 2003

U.S. Patent 6,569,520 to Jacobs dated May 27, 2003

U.S. Patent 6,572,784 to Coombs, et al. dated June 3, 2003

U.S. Patent 6,596,070 to Schmidt, et al. dated July 22, 2003

U.S. Patent 6,599,355 to Schmidt, et al. dated July 29, 2003

U.S. Patent 6,607,781 to Joedicke dated August 19, 2003

U.S. Patent 6,610,147 to Aschenbeck dated August 26, 2003

#### U.S. Patent Application Publications

U.S. 2002/0160151 to Pinault et al., Pub. Date: October 31, 2002

U.S. 2003/0035972 to Hanson et al., Pub. Date: February 20, 2003

U.S. 2003/0044525 to Aschenbeck, Pub. Date: March 6, 2003

U.S. 2003/0068469 to Aschenbeck et al., Pub. Date: April 10, 2003

U.S. 2003/0091795 to Kiik, et al Pub. Date: May 15, 2003

U.S. 2003/0152747 to Fensel, et al. Pub. Date: August 14, 2003

#### Publications and Other Referenced Documents

Y. Jiang et al., "Novel Pigment Approaches in Optically Variable Security Inks Including Polarizing Cholesteric Liquid Crystal (CLC) Polymers," Optical Security and Counterfeit Deterrence Techniques IV, SPIE 4677, 2002.

T. A. Germer et al., "Modeling the appearance of special effect pigment coatings," Surface Scattering and Diffraction for Advanced Metrology, Proc. SPIE 4447, 77-86, 2001.

L. Sung et al., "Characterization of Coating Microstructure Using Laser Scanning Confocal Microscopy," undated.

Adobe Systems Incorporated, Technical Guides "Color Models, The CIE Color Models", 2 pgs., 2000.

Adobe Systems Incorporated, Technical Guides "Color Models, The Munsell Color System", 4 pgs., 2000.

Adobe Systems Incorporated, Technical Guides "Color Models, CIELAB", 2 pgs., 2000.

Adobe Systems Incorporated, Technical Guides "Color Models, CIEXYZ", 2 pgs., 2000.

Project Advisory Committee Meeting, "Development of Cool Colored Roofing Materials," Oak Ridge National Laboratory and Livermore Berkeley National Laboratory, 55 pgs., March 11, 2003.

Ferro Corporation, "How Cool Colors & Eclipse Work," 3 pgs. 1999-2003.

Ferro Corporation, "Cool Colors & Eclipse Heat and Energy Saving Pigments," 2 pgs., 1999-2003.

Gaco Western Inc., "Solar Reflectivity of Common Roofing Materials and GacoFlex Roof Coatings," 2 pgs., undated.

BASF Aktiengesellschaft, "Product Specification, SICOLUX Metal Gloss L 6015," 1 pg., 9/18/02.

BASF Aktiengesellschaft, "Product Specification, SICOLUX Copper Gloss L 3015," 1 pg., 9/18/02.

BASF Corporation, "BASF launches two new pigments for tile coatings" by BASF Corporation, 1 pg. 1998-2003.

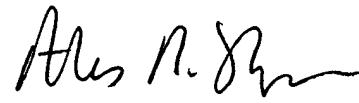
Silberline Manufacturing Co., Inc., "StarBrite," 1 pg., 2003.

The individual making this statement is the attorney who signs below on the basis of information provided by the inventors, information in the attorney's file; and an individual associated with the filing and prosecution of this application.

Serial No. 10/679,898  
Page 5

No additional fee is believed to be required. In the event, the Commissioner is hereby authorized to charge any additional fees associated with this communication, or credit any overpayment, to Paul & Paul Deposit Account No. 16-0750, Order No. 2050.

Respectfully submitted,

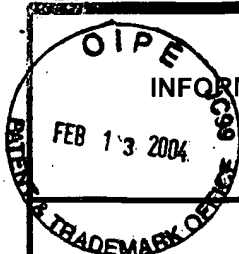


Alex R. Sluzas  
Registration No. 28,669

Date: February 10, 2004

Order No. 2050

Paul & Paul  
Two Thousand Market Street  
Suite 2900  
Philadelphia, PA 19103  
(215) 568-4900

**INFORMATION DISCLOSURE CITATION**

(Use several sheets if necessary)

ATTY DOCKET NO.

077-03

SERIAL NO.

10/679,898

Ming L. Shiao, et al.

FILING

October 6, 2003

GROUP

3635

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	2,732,311	01/24/56	Hartwright			
	2,963,378	12/06/60	Palmquist, et al.			
	2,981,636	04/25/61	Lodge, et al.			
	3,255,031	06/07/66	Lodge, et al.			
	4,583,486	04/22/86	Miller			
	4,717,614	01/05/88	Bondoc, et al.			
	4,916,014	04/10/90	Weber, et al.			
	5,380,552	01/10/95	George, et al.			
	5,516,573	05/14/96	George, et al.			
	5,723,516	03/03/98	Bigham, et al.			
	5,928,761	07/27/99	Hedblom, et al.			

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO


**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

			Y. Jiang et al., "Novel Pigment Approaches in Optically Variable Security Inks Including Polarizing Cholesteric Liquid Crystal (CLC) Polymers," Optical Security and Counterfeit Deterrence Techniques IV, SPIE 4677, 2002.
			T. A. Germer et al., "Modeling the appearance of special effect pigment coatings," Surface Scattering and Diffraction for Advanced Metrology, Proc. SPIE 4447, 77-86, 2001.

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

 <p style="text-align: center;"><b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)</p>	ATTY DOCKET NO. <b>077-03</b>	SERIAL NO. <b>10/679,898</b>
	<b>Ming L. Shiao, et al.</b>	
	FILING <b>October 6, 2003</b>	GROUP <b>3635</b>

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,962,143	10/05/99	Krauthauser, et al.			
	6,174,360	01/16/01	Sliwinski, et al.			
	6,366,397	04/02/02	Genjima, et al.			
	6,376,075	04/23/02	Tacke-Willemsen, et al.			
	6,454,848	09/24/02	Sliwinski, et al.			
	6,521,038	02/18/03	Yanagimoto, et al.			11/28/01
	6,533,961	03/18/03	Harelstad, et al.			02/12/01
	6,548,145	04/15/03	Joedicke			05/10/01
	6,569,520	05/27/03	Jacobs			03/21/00
	6,572,748	06/03/03	Coombs, et al.			11/17/00
	6,596,070	07/22/03	Schmidt, et al.			04/17/00

**FOREIGN PATENT DOCUMENTS**

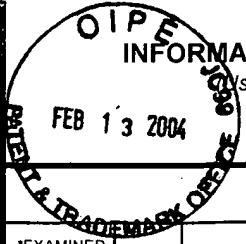
*	EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

			L. Sung et al., "Characterization of Coating Microstructure Using Laser Scanning Confocal Microscopy," undated.
			Adobe Systems Incorporated, Technical Guides "Color Models, The CIE Color Models," 2 pgs., 2000.

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
-----------------	------------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

 <p>INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)</p>				ATTY DOCKET NO. <b>077-03</b>		SERIAL NO. <b>10/679,898</b>	
				Ming L. Shiao, et al.			
				FILING <b>October 6, 2003</b>		GROUP <b>3635</b>	
<b>U.S. PATENT DOCUMENTS</b>							
*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
		6,599,355	07/29/03	Schmidt, et al.			04/26/02
		6,607,781	08/19/03	Joedicke			01/15/03
		6,610,147	09/26/03	Aschenbeck			08/31/01
		2002/0160151	10/31/02	Pinault, et al.			
		2003/0035972	02/20/03	Hanson, et al.			
		2003/0044525	03/06/03	Aschenbeck			
		2003/0068469	04/10/03	Aschenbeck, et al.			
		2003/0091795	05/15/03	Kiik, et al.			
		2003/0152747	08/14/03	Fensel, et al.			
<b>FOREIGN PATENT DOCUMENTS</b>							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
<b>OTHER DOCUMENTS</b> (Including Author, Title, Date, Pertinent Pages, Etc.)							
		Adobe Systems Incorporated, Technical Guides "Color Models, The Munsell Color System," 4 pgs., 2000.					
		Adobe Systems Incorporated, Technical Guides "Color Models, CIELAB," 2 pgs., 2000.					
EXAMINER				DATE CONSIDERED			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.





**077-03**

**10/679,898**

FILING

**October 6, 2003**

GROUP

3635

## U.S. PATENT DOCUMENTS

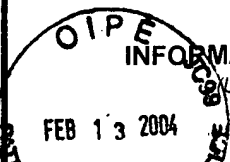
## FOREIGN PATENT DOCUMENTS

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

**EXAMINER**

DATE CONSIDERED

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<div style="text-align: center;">  <p><b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)</p> </div>	ATTY DOCKET NO. <b>077-03</b>	SERIAL NO. <b>10/679,898</b>
	<b>Ming L. Shiao, et al.</b>	
	FILING <b>October 6, 2003</b>	GROUP <b>3635</b>

**U.S. PATENT DOCUMENTS**

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

**FOREIGN PATENT DOCUMENTS**

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO

**OTHER DOCUMENTS** (Including Author, Title, Date, Pertinent Pages, Etc.)

			Gaco Western Inc., "Solar Reflectivity of Common Roofing Materials and GacoFlex Roof Coatings," 2 pgs., undated.
			BASF Aktiengesellschaft, "Product Specification, SICOLUX Metal Gloss L 6015," 1 pg., 9/18/02.

<b>EXAMINER</b>	<b>DATE CONSIDERED</b>
-----------------	------------------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



